

Application Number: 09/646,013
Attorney Docket Number: 08059.0005

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claim 1 (currently amended) A rotary impact rock crusher for crushing rocks, comprising:

a crushing chamber housing; and

a rotor positioned in the crushing chamber housing, the rotor being configured to receive the rocks thereinto and to eject the rocks outwardly therefrom so that the rocks are crushed in a space between the rotor and the crushing chamber housing,

wherein an angle of the rotor with respect to a vertical direction is adjustable[.]],

and

wherein the rotor and the crushing chamber housing are at a fixed position relative to each other so that the angle of the rotor and an angle of the crushing chamber housing with respect to the vertical direction are adjustable together,

Claim 2 (currently amended) A rock crusher as claimed in claim 1, A rotary impact rock crusher for crushing rocks, comprising:

a crushing chamber housing; and

a rotor positioned in the crushing chamber housing, the rotor being configured to receive the rocks thereinto and to eject the rocks outwardly therefrom,

wherein an angle of the rotor with respect to a vertical direction is adjustable, and

Application Number: 09/646,013
Attorney Docket Number: 08059.0005

wherein the angle of the rotor and an angle of the crushing chamber housing with respect to the vertical direction are adjustable independently of other crusher componentry.

Claim 3 (canceled)

Claim 4. (currently amended) A rock crusher as claimed in any of claims 1 [[to 3]] or 2, wherein the angle of the crushing chamber housing with respect to the vertical direction is adjustable to control rock fracture mechanisms in the rock crusher.

Claim 5 (canceled).

Claim 6 (previously presented) A rock crusher as claimed in claim 1, wherein the crushing chamber housing includes an anvil for the rocks ejected from the rotor to impact on.

Claim 7 (previously presented) A rock crusher as claimed in claim 1, wherein the rock crusher is configured such that, in operation, a rock wall is formed in at least part of an interior of the crushing chamber housing.

Application Number: 09/646,013
Attorney Docket Number: 08059.0005

Claim 8 (previously presented) A rock crusher as claimed in claim 7, wherein the rock wall forms an ever-tightening corner when at least one of rock crusher component angles is adjusted from the vertical direction.

Claim 9 (previously presented) A rock crusher as claimed in claim 1, wherein the rotor includes a drive shaft configured such that an angle of the drive shaft with respect to the vertical direction is variable independently of at least one other component in the rock crusher.

Claim 10 (previously presented) A rock crusher as claimed in claim 1, further comprising an anvil, a position of the anvil being adjustable in the rock crusher.

Claim 11 (previously presented) A rock crusher as claimed in claim 10, wherein the adjustable position of the anvil is a distance between the rotor and the anvil.

Claim 12 (previously presented) A rock crusher as claimed in claim 10, wherein the anvil includes at least one cavity positioned therewithin.

Claim 13 (previously presented) A rock crusher as claimed in claim 10, wherein the anvil includes a plurality of cavities therewithin.

Application Number: 09/646,013
Attorney Docket Number: 08059.0005

Claim 14 (previously presented) A rock crusher as claimed in claim 12, wherein the anvil is configured such that, if an anvil surface wears through, the at least one cavity will be filled with at least a portion of the rocks ejected from the rotor.

Claim 15 (previously presented) A rock crusher as claimed in claim 14, wherein further wearing of the anvil will regenerate an anvil impact surface.

Claim 16 (previously presented) A rock crusher as claimed in claim 13, wherein the cavities have substantially adjacent vertices.

Claim 17 (previously presented) A rock crusher as claimed in claim 10, wherein the anvil has a stepped face.

Claim 18 (previously presented) A rock crusher as claimed in claim 17, wherein the anvil includes at least one cavity associated with the stepped face.

Claim 19 (previously presented) A rock crusher as claimed in claim 10, wherein the anvil is located through an aperture in a crushing chamber wall.

Claim 20 (previously presented) A rock crusher as claimed in claim 19, wherein the anvil is adjustable by altering the position of the anvil through the aperture in the crushing chamber wall.

Application Number: 09/646,013
Attorney Docket Number: 08059.0005

Claim 21 (previously presented) A rock crusher as claimed in claim 10, wherein the anvil is adjustable from outside of the crushing chamber housing of the rock crusher.

Claim 22 (previously presented) A rock crusher as claimed in claim 1, wherein the crushing chamber housing includes a plurality of anvils arranged to operate in combination with the rotor.

Claim 23 (previously presented) A rock crusher as claimed in claim 1, further comprising an exit means for crushed rocks, the exit means projecting to one side of the rock crusher.

Claim 24 (previously presented) A rock crusher as claimed in claim 23, further comprising a shaft housing for a shaft driving the rotor in the rock crusher, the exit means surrounding the shaft housing such that a plane of the exit means intersects with the shaft housing at an acute angle.

Claim 25 (previously presented) A rock crusher as claimed in any one of claims 23 or 24, wherein the exit means is a chute and the chute is configured to vibrate as a result of operation of the rock crusher to urge the crushed rocks down the chute.

Application Number: 09/646,013
Attorney Docket Number: 08059.0005

Claim 26 (previously presented) A rock crusher as claimed in claim 25, wherein the chute is manufactured from rubber or plastic-based material.

Claims 27-37 (canceled)